IN THE CLAIMS:

1. (Currently amended) A method for executing a lighting program to control a plurality of light emitting diodes (LEDs), the method comprising acts of

(A) receiving an audio input in <u>a digital music file format</u> ~~digital form~~;

(B) digitally processing the audio input to determine at least one characteristic of the audio input;

(C) executing the lighting program to generate control signals to control the plurality of LEDs<u>, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time</u>; and

(D) during execution of the lighting program in the act (C), generating at least one of the control signals based at least in part on the at least one characteristic of the audio input.

2. (Original) The method of claim 1, wherein the act (A) includes an act of receiving the audio input in analog form and converting the audio input to digital form.

3. (Original) The method of claim 1, wherein the act (B) includes an act of performing a frequency transformation of the audio input to determine an activity level within at least one frequency band, and wherein the at least one characteristic of the audio input relates to the activity level within the at least one frequency band.

4. (Original) The method of claim 1, wherein the act (B) includes an act of determining a beat of the audio input, and wherein the at least one characteristic of the audio input relates to the beat.

5. (Original) The method of claim 1, wherein the act (B) includes an act of determining a volume of the audio input, and wherein the at least one characteristic of the audio input relates to the volume.

6.   (Original) The method of claim 1, wherein the act (B) includes an act of determining an intensity of the audio input, and wherein the at least one characteristic of the audio input relates to the intensity.

7.   (Original) The method of claim 1, wherein the act (A) includes an act of receiving the audio input as part of an audio/video signal.

8.   (Original) The method of claim 1, wherein the act (C) includes an act of transmitting pulse width modulated signals to the plurality of LEDs to control a perceived intensity of each of the plurality of LEDs.

9.   (Original) The method of claim 1, wherein the act (C) includes an act of executing a lighting program having at least one variable that has an input value, and wherein the act (D) includes an act of providing the at least one characteristic of the audio input as the input value of the at least one variable.

10.   (Original) The method of claim 1, wherein the lighting program is a first lighting program, and wherein the method further includes an act of, during execution of the first lighting program in the act (C), switching to execution of a second lighting program in response to the at least one characteristic of the audio input.

11.   (Original) The method of claim 1, further including an act of, during execution of the lighting program in the act (C), assigning an effect to at least one of the plurality of LEDs based at least in part on the at least one characteristic of the audio input.

12.   (Original) The method of claim 1, further including an act of, during execution of the lighting program in the act (C), determining a parameter of at least one effect assigned to at least one of the plurality of LEDs based at least in part on the at least one characteristic of the audio input.

13.   (Original) The method of claim 1, wherein the method further includes an act of providing a cue table that identifies various actions to be taken during execution of the lighting program in response to at least two inputs received at the cue table, and wherein the act (D) includes acts of:

providing at least two characteristics of the audio input as inputs to the cue table; and

during execution of the lighting program, generating at least one of the control signals in response to an output of the cue table.

14.   (Original) The method of claim 1, wherein the lighting program performs a mapping from the at least one characteristic of the audio input to the at least one of the control signals, wherein the method further includes an act of providing a cue table that identifies various actions to be taken during execution of the lighting program in response to at least two inputs received at the cue table, and wherein the act (D) includes acts of:

providing at least two characteristics of the audio input as inputs to the cue table; and

during execution of the lighting program, changing the mapping performed by the lighting program in response to an output of the cue table.

15.   (Original) The method of claim 1, wherein the at least one characteristic of the audio signal includes at least first and second characteristics, wherein the lighting program performs a mapping function from the first characteristic of the audio input to the at least one of the control signals, and wherein the act (D) includes an act of, during execution of the lighting program in the act (C), changing the mapping function performed by the lighting program in response to the second characteristic of the audio input.

16.   (Original) The method of claim 15, wherein the lighting program is a first lighting program, and wherein the method further includes an act of, during execution of the first

lighting program in the act (C), switching to execution of a second lighting program in response to the second characteristic of the audio input.

17. (Original) The method of claim 1, wherein the act (B) includes an act of digitally processing the audio input to determine a plurality of characteristics of the audio input; and wherein the act (D) includes an act of, during execution of the lighting program in the act (C), generating the control signals based at least in part on the plurality of characteristics of the audio input.

18. (Original) The method of claim 1, wherein the act (C) includes an act of executing the lighting program on a device coupled to at least one user interface; and
wherein the method further includes an act of, during execution of the lighting program in the act (C), generating at least one of the control signals based at least in part on user input provided via the at least one user interface.

19. (Original) The method of claim 1, wherein the act (C) includes an act of executing the lighting program on a device coupled to at least one user interface;
wherein the lighting program performs a mapping function from the at least one characteristic of the audio input to the at least one of the control signals; and
wherein the method further includes an act of changing the mapping function performed by the lighting program in response to an input received from the user interface.

20. (Currently amended) A computer readable medium encoded with a program that, when executed, performs a method for executing a lighting program to control a plurality of light emitting diodes (LEDs), the method comprising acts of:
(A) receiving an audio input in a digital music file format ~~digital form~~;
(B) digitally processing the audio input to determine at least one characteristic of the audio input;

(C) executing the lighting program to generate control signals to control the plurality of LEDs, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time; and

(D) during execution of the lighting program in the act (C), generating at least one of the control signals based at least in part on the at least one characteristic of the audio input.

21.   (Original) The computer readable medium of claim 20, wherein the act (A) includes an act of receiving the audio input in analog form and converting the audio input to digital form.

22.   (Original) The computer readable medium of claim 20, wherein the act (B) includes an act of performing a frequency transformation on the audio input to determine an activity level within at least one frequency band, and wherein the at least one characteristic of the audio input relates to the activity level within the at least one frequency band.

23.   (Original) The computer readable medium of claim 20, wherein the act (B) includes an act of determining a beat of the audio input, and wherein the at least one characteristic of the audio input relates to the beat.

24.   (Original) The computer readable medium of claim 20, wherein the act (B) includes an act of determining a volume of the audio input, and wherein the at least one characteristic of the audio input relates to the volume.

25.   (Original) The computer readable medium of claim 20, wherein the act (B) includes an act of determining an intensity of the audio input, and wherein the at least one characteristic of the audio input relates to the intensity.

26.   (Original) The computer readable medium of claim 20, wherein the act (C) includes an act of transmitting pulse width modulated signals to the plurality of LEDs to control a

perceived intensity of each of the plurality of LEDs.

27.   (Original) The computer readable medium of claim 20, wherein the act (C) includes an act of executing a lighting program having at least one variable that has an input value, and wherein the act (D) includes an act of providing the at least one characteristic of the audio input as the input value of the at least one variable.

28.   (Original) The computer readable medium of claim 20, wherein the lighting program is a first lighting program, and wherein the method further includes an act of, during execution of the first lighting program in the act (C), switching to execution of a second lighting program in response to the at least one characteristic of the audio input.

29.   (Original) The computer readable medium of claim 20, wherein the method further includes an act of, during execution of the lighting program in the act (C), assigning an effect to at least one of the plurality of LEDs based at least in part on the at least one characteristic of the audio input.

30.   (Original) The computer readable medium of claim 20, further including an act of, during execution of the lighting program in the act (C), determining a parameter of at least one effect assigned to at least one of the plurality of LEDs based at least in part on the at least one characteristic of the audio input.

31.   (Previously Presented) The computer readable medium of claim 93, wherein the lighting program is a first lighting program, and wherein the method further includes an act of, during execution of the first lighting program in the act (C), switching to execution of a second lighting program in response to the second characteristic of the audio input.

32.   (Original) The computer readable medium of claim 20, wherein the act (B) includes an act of digitally processing the audio input to determine a plurality of characteristics of the audio input; and

wherein the act (D) includes an act of, during execution of the lighting program in the act (C), generating the control signals based at least in part on the plurality of characteristics of the audio input.

33.   (Original) The computer readable medium of claim 20, wherein the act (C) includes an act of executing the lighting program on a device coupled to at least one user interface; and

wherein the method further includes an act of, during execution of the lighting program in the act (C), generating at least one of the control signals based at least in part on user input provided via the at least one user interface.

34.   (Original) The computer readable medium of claim 20, wherein the act (C) includes an act of executing the lighting program on a device coupled to at least one user interface;

wherein the lighting program performs a mapping function from the at least one characteristic of the audio input to the at least one of the control signals; and

wherein the method further includes an act of changing the mapping function performed by the lighting program in response to an input received from the user interface.

35.   (Currently amended) An apparatus for executing a lighting program to control a plurality of light emitting diodes (LEDs), the apparatus comprising:

at least one storage medium to store the lighting program;

at least one input to receive an audio input a digital music file format;

an audio decoder to digitally process the audio input to determine at least one characteristic of the audio input; and

at least one controller, coupled to the audio decoder and the at least one storage medium, to execute the lighting program to generate control signals to control the plurality

of LEDs, <u>wherein the lighting program is arranged to control the plurality of LEDs to</u> <u>display a lighting sequence comprising at least two lighting effects spaced in time, and</u> wherein the at least one controller generates at least one of the control signals based at least in part on the at least one characteristic of the audio input.

36. (Cancelled) The apparatus of claim 35, further including an analog-to-digital converter, coupled to the at least one input, to convert the audio input from analog form to digital form.

37. (Original) The apparatus of claim 35, wherein the audio decoder performs a frequency transformation on the audio input to determine an activity level within at least one frequency band, and wherein the at least one characteristic of the audio input relates to the activity level within the at least one frequency band.

38. (Original) The apparatus of claim 35, wherein the audio decoder determines a beat of the audio input, and wherein the at least one characteristic of the audio input relates to the beat.

39. (Original) The apparatus of claim 35, wherein the audio decoder determines a volume of the audio input, and wherein the at least one characteristic of the audio input relates to the volume.

40. (Original) The apparatus of claim 35, wherein the audio decoder determines an intensity of the audio input, and wherein the at least one characteristic of the audio input relates to the intensity.

41. (Original) The apparatus of claim 35, wherein the at least one controller transmits pulse width modulated signals to the plurality of LEDs to control a perceived intensity of each of the plurality of LEDs.

42.   (Original) The apparatus of claim 35, wherein the lighting program has at least one variable that has an input value, and wherein the at least one controller provides the at least one characteristic of the audio input as the input value of the at least one variable.

43.   (Original) The apparatus of claim 35, wherein the lighting program is a first lighting program, wherein the at least one storage medium further stores a second lighting program, and wherein the at least one controller, during execution of the first lighting program, switches to execution of the second lighting program in response to the at least one characteristic of the audio input.

44.   (Original) The apparatus of claim 35, wherein the at least one controller, during execution of the lighting program, assigns an effect to at least one of the plurality of LEDs based at least in part on the at least one characteristic of the audio input.

45.   (Original) The apparatus of claim 35, wherein the at least one controller, during execution of the lighting program, determines a parameter of at least one effect assigned to at least one of the plurality of LEDs based at least in part on the at least one characteristic of the audio input.

46.   (Original) The apparatus of claim 35, further including a cue table that identifies various actions to be taken during execution of the lighting program in response to at least two inputs received at the cue table, wherein the cue table is coupled to the audio decoder to receive information identifying at least two characteristics of the audio input, and wherein the at least one controller generates at least one of the control signals in response to an output of the cue table.

47.   (Original) The apparatus of claim 35, wherein the at least one characteristic of the audio signal includes at least first and second characteristics, wherein the lighting program

performs a mapping function from the first characteristic of the audio input to the at least one of the control signals, and wherein the at least one controller, during execution of the lighting program, changes the mapping function performed by the lighting program in response to the second characteristic of the audio input.

48.   (Original) The apparatus of claim 47, wherein the lighting program is a first lighting program, wherein the at least one storage medium further stores a second lighting program, and wherein the at least one controller, during execution of the first lighting program, switches to execution of the second lighting program in response to the second characteristic of the audio input.

49.   (Original) The apparatus of claim 35, further including at least one user interface, and wherein the at least one controller, during execution of the lighting program, generates at least one of the control signals based at least in part on user input provided via the at least one user interface.

50.   (Original) The apparatus of claim 35, further including at least one user interface; and

wherein the lighting program performs a mapping function from the at least one characteristic of the audio input to the at least one of the control signals; and

wherein the at least one controller changes the mapping function performed by the lighting program in response to an input received from the user interface.

51.   (Currently amended) A computer readable medium encoded with a first program that, when executed on a processor, performs a method for executing a lighting program to control a plurality of light emitting diodes (LEDs), wherein the processor is programmed with a second program that processes an audio input to determine at least one characteristic of the audio input, the method comprising acts of:

(A) receiving information from the second program relating to the at least one characteristic of the audio input, wherein the audio input is in a digital music file format;

(B) executing the lighting program to generate control signals to control the plurality of LEDs, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time; and

(C) during execution of the lighting program in the act (B), generating at least one of the control signals based at least in part on the at least one characteristic of the audio input received from the first program.

52. (Original) The computer readable medium of claim 51, wherein the act (B) includes an act of transmitting pulse width modulated signals to the plurality of LEDs to control a perceived intensity of each of the plurality of LEDs.

53. (Original) The computer readable medium of claim 51, wherein the act (B) includes an act of executing a lighting program having at least one variable that has an input value, and

wherein the act (C) includes an act of providing the at least one characteristic of the audio input as the input value of the at least one variable.

54. (Original) The computer readable medium of claim 51, wherein the at least one characteristic of the audio signal includes at least first and second characteristics,

wherein the lighting program performs a mapping function from the first characteristic of the audio input to the at least one of the control signals, and wherein the act (C) includes an act of, during execution of the lighting program in the act (B), changing the mapping function performed by the lighting program in response to the second characteristic of the audio input.

55. (Original) The computer readable medium of claim 51, wherein the act (B) includes an act of executing the lighting program on a device coupled to at least one user interface;

wherein the lighting program performs a mapping function from the at least one characteristic of the audio input to the at least one of the control signals; and wherein the method further includes an act of changing the mapping function performed by the lighting program in response to an input received from the user interface.

56.   (Currently amended) The computer readable medium of claim 51, wherein the second program processes ~~an~~ the audio input ~~in MP3 format~~ to determine at least one characteristic of the audio input, and wherein the first program is a plug-in compatible with an application programming interface provided by the second program.

57.   (Currently amended) A method for executing a lighting program to control a plurality of light emitting diodes (LEDs), the method comprising acts of:

(A)   receiving an audio input and an input from at least one timer, wherein the audio input is in a digital music file format;

(B)   analyzing the audio input to determine at least one characteristic of the audio input;

(C)   executing the lighting program to generate control signals to control the plurality of LEDs, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time; and

(D)   during execution of the lighting program in the act (C), generating at least one of the control signals based at least in part on the at least one characteristic of the audio input and the input from the at least one timer.

58.   (Original) The method of claim 57, wherein the at least one characteristic of the audio signal includes at least first and second characteristics, wherein the lighting program performs a mapping function from the first characteristic of the audio input to the at least one of the control signals, and wherein the act (D) includes an act of, during execution of the lighting program in the act (C), changing the mapping function performed by the lighting program in response to the second characteristic of the audio input.

59.   (Original) The method of claim 57, wherein the act (C) includes an act of executing the lighting program on a device coupled to at least one user interface; and
wherein the method further includes an act of, during execution of the lighting program in the act (C), generating at least one of the control signals based at least in part on user input provided via the at least one user interface.

60.   (Original) The method of claim 57, wherein the act (C) includes an act of executing the lighting program on a device coupled to at least one user interface;
wherein the lighting program performs a mapping function from the at least one characteristic of the audio input to the at least one of the control signals; and
wherein the method further includes an act of changing the mapping function performed by the lighting program in response to an input received from the user interface.

61.   (Original) The method of claim 57, wherein the act (C) includes an act of transmitting pulse width modulated signals to the plurality of LEDs to control a perceived intensity of each of the plurality of LEDs.

62.   (Original) The method of claim 57, wherein the act (C) includes an act of executing a lighting program having at least first and second variables that each has an input value, and wherein the act (D) includes an act of providing the at least one characteristic of the audio input as the input value of the first variable and the input from the at least one timer as the input value of the second variable.

63.   (Original) The method of claim 57, wherein the lighting program is a first lighting program, and wherein the method further includes an act of, during execution of the first lighting program in the act (C), switching to execution of a second lighting program in response to the input from the at least one timer.

64.   (Currently amended) A computer readable medium encoded with a program that, when executed, performs a method for executing a lighting program to control a plurality of light emitting diodes (LEDs), the method comprising acts of:

(A) receiving an audio input and an input from at least one timer, wherein the audio input is in a digital music file format;

(B) analyzing the audio input to determine at least one characteristic of the audio input;

(C) executing the lighting program to generate control signals to control the plurality of LEDs, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time; and

(D) during execution of the lighting program in the act (C), generating at least one of the control signals based at least in part on the at least one characteristic of the 5 audio input and the input from the at least one timer.

65.   (Original) The computer readable medium of claim 64, wherein the at least one characteristic of the audio signal includes at least first and second characteristics, wherein the lighting program performs a mapping function from the first characteristic of the audio input to the at least one of the control signals, and wherein the act (D) includes an act of, during execution of the lighting program in the act (C), changing the mapping function performed by the lighting program in response to the second characteristic of the audio input.

66.   (Original) The computer readable medium of claim 64, wherein the act (C) includes an act of executing the lighting program on a device coupled to at least one user interface; and

wherein the method further includes an act of, during execution of the lighting program in the act (C), generating at least one of the control signals based at least in part on user input provided via the at least one user interface.

67.   (Original) The computer readable medium of claim 64, wherein the act (C) includes an act of executing the lighting program on a device coupled to at least one user interface;

wherein the lighting program performs a mapping function from the at least one characteristic of the audio input to the at least one of the control signals; and

wherein the method further includes an act of changing the mapping function performed by the lighting program in response to an input received from the user interface.

68.   (Original) The computer readable medium of claim 64, wherein the act (C) includes an act 30 of transmitting pulse width modulated signals to the plurality of LEDs to control a perceived intensity of each of the plurality of LEDs.

69.   (Original) The computer readable medium of claim 64, wherein the act (C) includes an act of executing a lighting program having at least first and second variables that each has an input value, and wherein the act (D) includes an act of providing the at least one characteristic of the audio input as the input value of the first variable and the input from the at least one timer as the input value of the second variable.

70.   (Original) The computer readable medium of claim 64, wherein the lighting program is a first lighting program, and wherein the method further includes an act of, during execution of the first lighting program in the act (C), switching to execution of a second lighting program in response to the input from the at least one timer.

71.   (Currently amended) A computer readable medium encoded with a first program that, when executed on a processor, performs a method for executing a lighting program to control a plurality of light emitting diodes (LEDs), wherein the processor is programmed with a second program that processes an audio input to determine at least one characteristic of the audio input, the method comprising acts of

(A) receiving information from the second program relating to the at least one

characteristic of the audio input and an input from the at least one timer, wherein the audio input is in a digital music file format;

(B) executing the lighting program to generate control signals to control the [[20]] plurality of LEDs, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time; and

(C) during execution of the lighting program in the act (B), generating at least one of the control signals based at least in part on the at least one characteristic of the audio input and the input from the at least one timer.

72.   (Original) The computer readable medium of claim 71, wherein the at least one characteristic f the audio signal includes at least first and second characteristics, wherein the lighting program performs a mapping function from the first characteristic of the audio input to the at least one of the control signals, and wherein the act (C) includes an act of, during execution of the lighting program in the act (B), changing the mapping function performed by the lighting program in response to the second characteristic of the audio input.

73.   (Original) The computer readable medium of claim 71, wherein the act (B) includes an act of executing the lighting program on a device coupled to at least one user interface; and

wherein the method further includes an act of, during execution of the lighting program in the act (B), generating at least one of the control signals based at least in part on user input provided via the at least one user interface.

74.   (Original) The computer readable medium of claim 71, wherein the act (B) includes an act of executing the lighting program on a device coupled to at least one user interface;

wherein the lighting program performs a mapping function from the at least one characteristic of the audio input to the at least one of the control signals; and

wherein the method further includes an act of changing the mapping function performed by the lighting program in response to an input received from the user interface.

75.   (Original) The computer readable medium of claim 71, wherein the act (B) includes an act of transmitting pulse width modulated signals to the plurality of LEDs to control a perceived intensity of each of the plurality of LEDs.

76.   (Original) The computer readable medium of claim 71, wherein the act (B) includes an act of executing a lighting program having at least first and second variables that each has an input value, and wherein the act (C) includes an act of providing the at least one characteristic of the audio input as the input value of the first variable and the input from the at least one timer as the input value of the second variable.

77.   (Original) The computer readable medium of claim 71, wherein the lighting program is a first lighting program, and wherein the method further includes an act of, during execution of the first lighting program in the act (B), switching to execution of a second lighting program in response to the input from the at least one timer.

78.   (Currently amended) An apparatus for executing a lighting program to control a plurality of light emitting diodes (LEDs), the apparatus comprising:

at least one storage medium to store the lighting program;

at least one input to receive an audio input, wherein the audio input is in a digital music file format;

an audio decoder to process the audio input to determine at least one characteristic of the audio input; and

at least one controller, coupled to the audio decoder and the at least one storage medium, to execute the lighting program to generate control signals to control the plurality of LEDs, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time, and

wherein the at least one controller generates at least one of the control signals based at least in part on the at least one characteristic of the audio input and an input from at least one timer.

79.   (Original) The apparatus of claim 78, further including the at least one timer.

80.   (Currently amended) The apparatus of claim 78, wherein the at least one characteristic of the audio input ~~signal~~ includes at least first and second characteristics, wherein the lighting program performs a mapping function from the first characteristic of the audio input to the at least one of the control signals, and wherein the at least one controller, during execution of the lighting program, changes the mapping function performed by the lighting program in response to the second characteristic of the audio input.

81.   (Original) The apparatus of claim 78, further including at least one user interface, and

wherein the at least one controller generates at least one of the control signals based at least in part on user input provided via the at least one user interface.

82.   (Original) The apparatus of claim 78, further including at least one user interface; and

wherein the lighting program performs a mapping function from the at least one characteristic of the audio input to the at least one of the control signals; and
wherein the at least one controller changes the mapping function performed by the lighting program in response to an input received from the user interface.

83.   (Original) The apparatus of claim 78, wherein the at least one controller transmits pulse width modulated signals to the plurality of LEDs to control a perceived intensity of each of the plurality of LEDs.

84.   (Original) The apparatus of claim 78, wherein the lighting program having at least first and second variables that each has an input value, and wherein the at least one provides the at least one characteristic of the audio input as the input value' of the first variable and the input from the at least one timer as the input value of the second variable.

85.   (Original) The apparatus of claim 78, wherein the lighting program is a first lighting program, and wherein the at least one controller, during execution of the first lighting program, switches to execution of a second lighting program in response to the input from the at least one timer.

86.   (Currently amended) A method for executing a lighting program to control a plurality of light emitting diodes (LEDs), the method comprising acts of:

    (A)   receiving an audio input and an input from a graphical user interface, wherein the audio input is in a digital music file format;

    (B)   analyzing the audio input to determine at least one characteristic of the [[15]] audio input;

    (C)   executing the lighting program to generate control signals to control the plurality of LEDs, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time; and

    (D)   during execution of the lighting program in the act (C), generating at least one of the control signals based at least in part on the at least one characteristic of the [[20]] audio input and the input from the graphical user interface.

87.   (Currently amended) A method for execution on a computer, the method comprising acts of:

    (A)   processing, on the computer, information indicative of an audio input signal to generate a speaker-compatible signal indicative of the audio input signal, wherein the audio input signal is in a digital music file format;

(B)   determining at least one characteristic of the audio <u>input</u> signal;

(C)   executing, on the computer, a lighting program to generate control signals to control a plurality of light emitting diodes (LEDs)<u>, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time</u>;

(D)   during execution of the lighting program in the act (C), generating at least one of the control signals based at least in part on the at least one characteristic of the [[30]] audio input <u>signal</u>; and

(E)   transmitting the speaker-compatible signal to a speaker to generate audible sound indicative of the audio <u>input</u> signal.

88.   (Currently amended) The method of claim 87, wherein the act (A) includes an act of processing information, received from another device, indicative of an audio <u>input</u> signal to generate the speaker-compatible signal.

89.   (Currently amended) The method of claim 87, wherein the act (A) includes an act of reading digital information, stored on a computer readable medium coupled to the computer, indicative of the audio <u>input</u> signal to generate the speaker-compatible signal.

90.   (Currently amended) A method for authoring a lighting program to control a plurality of light emitting diodes (LEDs) is response to at least one characteristic of an audio input, the method comprising acts of:

(A)   providing a graphical user interface (GUI) that displays information representative of the plurality of LEDs, a plurality of lighting effects to be assigned thereto, and the at least one characteristic of the audio input<u>, wherein the audio input is in a digital music file format</u>;

(B)   selecting, based on at least one user input provided via the GUI, at least one of the plurality of lighting effects to correspond to at least one of the plurality of LEDs in response to the at least one characteristic of the audio input; and

(C)   creating a lighting program, based on the at least one user input, for generating control information for the plurality of LEDs, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time.

91.   (Currently amended) A method for executing a lighting program to control a plurality of light emitting diodes (LEDs), the method comprising acts of:

(A)   receiving an audio input, wherein the audio input is in a digital music file format;

(B)   analyzing the audio input to determine at least one characteristic of the audio input;

(C)   storing information related to the at least one characteristic of the audio input;

(D)   executing the lighting program, after completion of the act (C), to generate control signals to control the plurality of LEDs, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time; and

(E)   during execution of the lighting program in the act (D), reading the stored information and generating at least one of the control signals based at least in part on the at least one characteristic of the audio input.

92.   (Currently Amended) A method for executing a lighting program to control a plurality of light emitting diodes (LEDs) to create a light show, the method comprising acts of:

(A)   receiving an audio input having a duration and varying in time during the duration of the audio input, wherein the audio input is in a digital music file format;

(B)   digitally processing the audio input to determine at least one first characteristic of the audio input at a first time during the duration;

(C)   executing the lighting program in synchronization with the audio input to generate control signals to control the plurality of LEDs, wherein the lighting program is arranged to control the plurality of LEDs to display, as part of the light show, a lighting sequence comprising at least two lighting effects spaced in time; and

(D)   during execution of the lighting program in the act (C) at a time that is prior to the first time during the duration of the audio input, generating at least one of the control signals based at least in part on the at least one first characteristic of the audio input so that the light show anticipates changes in the audio input.

93.   (Currently amended) The computer readable medium of claim 20, wherein the at least one characteristic of the audio input signal includes at least first and second characteristics, wherein the lighting program performs a mapping function from the first characteristic of the audio input to the at least one of the control signals, and wherein the act (D) includes an act of, during execution of the lighting program in the act (C), changing the mapping function performed by the lighting program in response to the second characteristic of the audio input.